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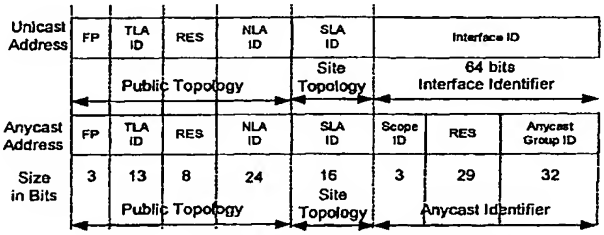
(54) Title: ANYCAST ADDRESSING FOR INTERNET PROTOCOL VERSION SIX



FP	Format Prefix (001 – Unicast, 010 – Anycast, 011 - Both)
TLA ID	Top-Level Aggregation Identifier
RES	Reserved for future use
NLA ID	Next-Level Aggregation Identifier
SLA ID	Site-Level Aggregation Identifier
Interface ID	Interface Identifier
Scope ID	Scope Identifier 000 – Node Local 001 - Link Local 010 – Site Local 011- Global others - Reserved

(57) Abstract: A protocol associated with an Internet protocol version six (Ipv6) network address included within a network packet provides both unicast and anycast addressing, while having the same bit locations and bit functions associated with a top-level aggregation identifier, a next-level aggregation identifier, and a site-level aggregation identifier. A prefix associated with the three most significant bits of the network address identifies the network address as being a unicast address, an anycast address, or both a unicast and an anycast address. The prefix that identifies the network address as being both a unicast and an anycast address allows routers to have smaller routing tables.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L29/06 H04L29/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PARTRIDGE C ET AL: "RFC 1546: Host Anycasting Service" NETWORK WORKING GROUP REQUEST FOR COMMENTS, November 1993 (1993-11), pages 1-9, XP002316615 INET cited in the application page 3 - page 4	1-32

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[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
22 April 2005	03/06/2005

Name and mailing address of the ISA	Authorized officer
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International Application No
PCT/US2004/043051

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	HINDEN ET AL: "RFC 3513: Internet Protocol Version 6 (IPv6) Addressing Architecture" [Online] April 2003 (2003-04), IETF , INTERNET, PAGES 1-26 , XP002324175 Retrieved from the Internet: URL:ftp://ftp.isi.edu/in-notes/rfc3513.txt > [retrieved on 2005-04-11] cited in the application page 13, paragraph 2.7	1-32
A	HAGINO AT AL: "An analysis of IPv6 anycast" [Online] 27 February 2001 (2001-02-27), IETF , INET, PAGES 1-8, INTERNET DRAFT , XP002324176 Retrieved from the Internet: URL:http://playground.iijlab.net/i-d/draft-itojun-ipv6-anycast-analysis-02.txt> [retrieved on 2005-04-11] page 3, line 23 - line 24	1-32
A	KATABI D ET AL: "A FRAMEWORK FOR GLOBAL IP-ANYCAST (GIA)" IETF, [Online] June 1999 (1999-06), pages 1-20, XP002324179 INTERNET Retrieved from the Internet: URL:http://www.watersprings.org/pub/id/draft-katabi-global-anycast-00.txt> [retrieved on 2005-04-11] page 2, paragraph 14 - paragraph 34	1-32